Laia VilÃ -Nadal

List of Publications by Year
in descending order

40 papers	1,849 citations	304368 22 h-index	344852 36 g-index
51 all docs	51 docs citations	51 times ranked	2059 citing authors

#	Article	IF	Citations
1	Polyoxometalate based open-frameworks (POM-OFs). Chemical Society Reviews, 2014, 43, 5679-5699.	18.7	359
2	Design and fabrication of memory devices based on nanoscale polyoxometalate clusters. Nature, 2014, 515, 545-549.	13.7	301
3	Design and synthesis of polyoxometalate-framework materials from cluster precursors. Nature Reviews Materials, 2017, 2, .	23.3	191
4	Redox tuning the Weakley-type polyoxometalate archetype for the oxygen evolution reaction. Nature Catalysis, 2018, 1, 208-213.	16.1	97
5	Nucleation Mechanisms of Molecular Oxides: A Study of the Assemblyâ€“Dissassembly of [W₆O₁₉]^{2â¯} by Theory and Mass Spectrometry. Angewandte Chemie - International Edition, 2009, 48, 5452-5456.	7.2	83
6	Towards Polyoxometalateâ€Clusterâ€Based Nanoâ€Electronics. Chemistry - A European Journal, 2013, 19, 16502-16511.	1.7	65
7	Self-Sorting of Heteroanions in the Assembly of Cross-Shaped Polyoxometalate Clusters. Journal of the American Chemical Society, 2018, 140, 2595-2601.	6.6	62
8	Combined Theoretical and Mass Spectrometry Study of the Formation-Fragmentation of Small Polyoxomolybdates. Inorganic Chemistry, 2011, 50, 7811-7819.	1.9	53
9	Investigating the Transformations of Polyoxoanions Using Mass Spectrometry and Molecular Dynamics. Journal of the American Chemical Society, 2016, 138, 8765-8773.	6.6	50
10	A metamorphic inorganic framework that can be switched between eight single-crystalline states. Nature Communications, 2017, 8, 14185.	5.8	46
11	Connecting theory with experiment to understand the initial nucleation steps of heteropolyoxometalate clusters. Physical Chemistry Chemical Physics, 2011, 13, 20136.	1.3	44
12	Formation, self-assembly and transformation of a transient selenotungstate building block into clusters, chains and macrocycles. Chemical Communications, 2014, 50, 2155-2157.	2.2	41
13	Effective Storage of Electrons in Water by the Formation of Highly Reduced Polyoxometalate Clusters. Journal of the American Chemical Society, 2022, 144, 8951-8960.	6.6	37
14	Assembly of titanium embedded polyoxometalates with unprecedented structural features. Dalton Transactions, 2010, 39, 11599.	1.6	36
15	Controlling the Reactivity of the [P₈W₄₈O₁₈₄]^{40â¯} Inorganic Ring and Its Assembly into POMZite Inorganic Frameworks with Silver Ions. Angewandte Chemie - International Edition, 2019, 58, 17282-17286.	7.2	36
16	Hydration of Hydrogentungstate Anions at Different pH Conditions: A Carâ¯Parrinello Molecular Dynamics Study. Inorganic Chemistry, 2008, 47, 7745-7750.	1.9	31
17	Trapping the Î´ Isomer of the Polyoxometalateâ€Based Keggin Cluster with a Tripodal Ligand. Angewandte Chemie - International Edition, 2015, 54, 15488-15492.	7.2	31
18	Towards the Accurate Calculation of ¹⁸³W NMR Chemical Shifts in Polyoxometalates: The Relevance of the Structure. Chemistry - an Asian Journal, 2010, 5, 97-104.	1.7	28

#	Article	IF	Citations
19	Following the Reaction of Heteroanions inside a {W₁₈O₅₆} Polyoxometalate Nanocage by NMR Spectroscopy and Mass Spectrometry. Angewandte Chemie - International Edition, 2015, 54, 7895-7899.	7.2	28
20	Exploring the rotational isomerism in non-classical Wellsâ€“Dawson anions {W₁₈X}: a combined theoretical and mass spectrometry study. Dalton Transactions, 2012, 41, 2264-2271.	1.6	27
21	Investigating the Formation of Giant {Pd₇₂}^{Prop} and {Pd₈₄}^{Gly} Macrocycles Using NMR, HPLC, and Mass Spectrometry. Journal of the American Chemical Society, 2018, 140, 9379-9382.	6.6	27
22	Polyoxometalate {W₁₈O₅₆XO₆} Clusters with Embedded Redoxâ€Active Mainâ€Group Templates as Localized Innerâ€Cluster Radicals. Angewandte Chemie - International Edition, 2013, 52, 9695-9699.	7.2	26
23	Influence of the Contact Geometry and Counterions on the Current Flow and Charge Transfer in Polyoxometalate Molecular Junctions: A Density Functional Theory Study. Journal of Physical Chemistry C, 2021, 125, 3599-3610.	1.5	23
24	Theoretical Analysis of the Possible Intermediates in the Formation of [W₆O₁₉]^{2â€“}. European Journal of Inorganic Chemistry, 2009, 2009, 5125-5133.	1.0	21
25	Optimization and Evaluation of Variability in the Programming Window of a Flash Cell With Molecular Metalâ€“Oxide Storage. IEEE Transactions on Electron Devices, 2014, 61, 2019-2026.	1.6	13
26	Following the Reaction of Heteroanions inside a {W₁₈O₅₆} Polyoxometalate Nanocage by NMR Spectroscopy and Mass Spectrometry. Angewandte Chemie, 2015, 127, 8006-8010.	1.6	10
27	Controlling the Reactivity of the [P 8 W 48 O 184] 40â^' Inorganic Ring and Its Assembly into POMZite Inorganic Frameworks with Silver Ions. Angewandte Chemie, 2019, 131, 17442-17446.	1.6	9
28	Theoretical view on the origin and implications of structural distortions in polyoxometalates. Physics Procedia, 2010, 8, 94-103.	1.2	8
29	Comparison Between Bulk and FDSOI POM Flash Cell: A Multiscale Simulation Study. IEEE Transactions on Electron Devices, 2015, 62, 680-684.	1.6	8
30	Synthesis of polyoxometalate clusters using carbohydrates as reducing agents leads to isomer-selection. Chemical Communications, 2019, 55, 5797-5800.	2.2	6
31	FDSOI molecular flash cell with reduced variability for low power flash applications. , 2014, , .		5
32	Looking for Options to Sustainably Fixate Nitrogen. Are Molecular Metal Oxides Catalysts a Viable Avenue?. Frontiers in Chemistry, 2021, 9, 742565.	1.8	4
33	Structural and Electronic Features of Wells-Dawson Polyoxometalates. NATO Science for Peace and Security Series B: Physics and Biophysics, 2012, , 171-183.	0.2	4
34	First Principle Simulations of Current Flow in Inorganic Molecules: Polyoxometalates (POMs). , 2019, , .		2
35	Multi-scale computational framework for the evaluation of variability in the programing window of a flash cell with molecular storage. , 2013, , .		1
36	Molecular based flash cell for low power flash application: Optimization and variability evaluation. , 2017, , .		1

#	Article	IF	Citations
37	Coordination Chemistry in Polyoxometalates and Metal Clusters. , 2021, , 118-154.		1
38	POMzites: A roadmap for inverse design in metal oxide chemistry. International Journal of Quantum Chemistry, 2021, 121, e26493.	1.0	1
39	RÃ¼cktitelbild: Following the Reaction of Heteroanions inside a {W18O56} Polyoxometalate Nanocage by NMR Spectroscopy and Mass Spectrometry (Angew. Chem. 27/2015). Angewandte Chemie, 2015, 127, 8112-8112.	1.6	0
40	A multi-scale simulation study for optimization and variability evaluation of molecular based flash cell. , 2018, , .		0